

Abstract

A push back storage rack system for storing multiple loads in a single inclined cart lane. Each lane contains at least two wheeled carts, each cart being capable of receiving and storing multiple pallet loads. The carts are vertically spaced so that they can freely slide underneath each other when unloaded. Beginning with the first or lowest level cart in the system, each successively higher cart is also wider and longer than the cart immediately beneath it. The carts are positioned on at least one but potentially two pairs of rectangular tracks or tubes, each tube being capable of supporting two or four individual carts, depending on how the carts are constructed and installed on the tubes. The tubes are mounted on an incline away from a loading end of each lane so that when loads are placed on or are removed from a lane, the carts are biased toward the loading end of the lane by the force of gravity. Each tube has a single, planar upper support surface which has inside and outside edges. The wheels of each cart ride only on either the inside or outside edges of the tubes on which they are mounted, allowing more than one vertically spaced cart to occupy the same tube.

640170